\$java PastryMain 1000 10000 1000 10 12931

Number of Nodes - Lower Bound: 1000

Number of Nodes - Upper Bound: 10000 Increment: 1000 Number of trials: 10 For b = 1N Н 5.0 1000 4.5 4.0 4.7 4.5 3.4 4.2 4.7 4.5 3.5 Mean = 4.30, Expected = 9.97, Standard Deviation = 0.52 2000 4.6 4.7 4.5 3.8 5.8 4.8 4.2 4.0 5.1 Mean = 4.62, Expected = 10.97, Standard Deviation = 0.57 4.8 3000 5.5 4.5 5.0 5.5 5.5 5.6 5.4 5.1 Mean = 5.20, Expected = 11.55, Standard Deviation = 0.36 4000 5.6 4.8 4.9 5.5 5.9 4.3 5.4 5.1 6.3 Mean = 5.38, Expected = 11.97, Standard Deviation = 0.61 5000 5.7 6.5 6.2 5.8 5.7 6.4 5.3 5.5 4.7 6.5 Mean = 5.83, Expected = 12.29, Standard Deviation = 0.58 6000 6.2 5.2 5.0 5.4 5.7 5.9 6.0 6.1 Mean = 5.72, Expected = 12.55, Standard Deviation = 0.45 7000 6.4 5.9 5.6 6.0 6.8 4.4 5.5 5.6 Mean = 5.85, Expected = 12.77, Standard Deviation = 0.65 8000 5.7 5.8 6.1 5.5 5.8 6.1 5.9 5.9 Mean = 5.72, Expected = 12.97, Standard Deviation = 0.33 9000 5.4 5.8 5.5 6.4 8.3 6.3 6.4 5.0 7.2 Mean = 6.27, Expected = 13.14, Standard Deviation = 0.96 10000 6.5 6.2 6.7 5.9 5.5 6.0 6.4 6.7 6.3 7.0 Mean = 6.32, Expected = 13.29, Standard Deviation = 0.44 chi^2 = 1915.81146 p-value = 1.00000 For b = 2Ν Н 1000 3.8 3.4 4.0 3.8 4.1 3.2 4.1 3.1 3.3 3.7 Mean = 3.65, Expected = 4.98, Standard Deviation = 0.37 2000 3.9 4.0 4.1 5.0 4.4 4.7 4.3 4.4 3.8 Mean = 4.26, Expected = 5.48, Standard Deviation = 0.38 3000 4.4 4.2 4.0 4.3 3.8 4.1 4.3 4.6 3.9 Mean = 4.20, Expected = 5.78, Standard Deviation = 0.25 4000 4.6 5.1 4.5 4.3 4.5 4.9 4.1 Mean = 4.50, Expected = 5.98, Standard Deviation = 0.33 5000 4.7 5.1 4.9 5.4 5.3 5.0 5.9 Mean = 5.02, Expected = 6.14, Standard Deviation = 0.52 6000 4.1 4.8 4.5 4.2 4.5 4.3 4.9 4.4 Mean = 4.50, Expected = 6.28, Standard Deviation = 0.31 7000 5.0 5.3 4.5 4.5 4.6 5.2 5.7 4.9 4.3 Mean = 4.94, Expected = 6.39, Standard Deviation = 0.46 8000 4.3 5.5 5.0 5.2 5.6 4.3 5.3 4.9 5.3 5.1 Mean = 5.05, Expected = 6.48, Standard Deviation = 0.45 9000 4.8 4.7 5.1 4.5 4.2 5.0 5.2 5.0 5.1 5.0 Mean = 4.86, Expected = 6.57, Standard Deviation = 0.31

```
10000 4.4 4.5 4.6 5.2 5.3 5.0 5.4 5.1 4.3
      Mean = 4.84, Expected = 6.64, Standard Deviation = 0.40
chi^2 = 191.10272
p-value = 1.00000
For b = 3
      Н
1000
     3.1
           3.1 3.5 3.2
                           3.1 2.8 3.1
                                              3.1
                                                          2.9
      Mean = 3.14, Expected = 3.32, Standard Deviation = 0.22
2000
           3.2 3.2 3.5
                           3.1
                                 3.0
                                        3.2
                                              3.3
                                                    3.0
                                                          3.2
      Mean = 3.22, Expected = 3.66, Standard Deviation = 0.18
           3.6 3.7
                      3.5
                            3.6 3.5
                                        3.7
3000
                                                          3.6
      Mean = 3.61, Expected = 3.85, Standard Deviation = 0.19
           3.9 3.6
                      3.4 3.9
                                 3.8
4000
                                       3.5
                                              3.7
      Mean = 3.76, Expected = 3.99, Standard Deviation = 0.33
5000
               3.8
                      3.8
                           4.3
                                 4.1
                                        4.3
                                              3.9
      Mean = 3.91, Expected = 4.10, Standard Deviation = 0.28
           4.4 4.0 3.4
                           4.1
                                 3.6 4.5
                                              3.5
6000
                                                    3.7
      Mean = 3.94, Expected = 4.18, Standard Deviation = 0.40
                            4.4 4.8
7000
           3.7 3.7
                      4.3
                                       4.2
                                                          3.9
      Mean = 4.08, Expected = 4.26, Standard Deviation = 0.40
     3.7 4.2 4.1 3.8 4.2 4.2
                                       4.2
8000
                                             4.1
                                                   3.7
                                                          4.5
      Mean = 4.07, Expected = 4.32, Standard Deviation = 0.26
9000
         4.2 4.1 3.9 3.9 3.8
                                      4.2
                                              4.0
                                                          4.7
      Mean = 4.09, Expected = 4.38, Standard Deviation = 0.25
10000 4.3 4.4 4.5 3.9 4.5
                                 3.8
                                       4.5
                                              3.8
                                                          4.2
      Mean = 4.21, Expected = 4.43, Standard Deviation = 0.28
chi^2 = 12.78573
p-value = 1.00000
For b = 4
N
1000
     2.8
           2.5 3.0 2.9 2.7 3.0 2.4
                                              2.2
                                                          2.7
      Mean = 2.67, Expected = 2.49, Standard Deviation = 0.27
2000
           2.9 3.1 3.1
                            2.6
                                 3.4
                                        2.6
                                              3.3
                                                    2.8
                                                          2.6
      Mean = 2.91, Expected = 2.74, Standard Deviation = 0.30
3000
           3.0 3.2 3.6
                           3.1 2.9
                                        3.3
                                              3.4
      Mean = 3.10, Expected = 2.89, Standard Deviation = 0.27
4000
           3.3 3.0 3.2 2.9 3.2 3.1
                                            3.0
      Mean = 3.21, Expected = 2.99, Standard Deviation = 0.26
5000
           3.5 3.1
                      3.6 3.2
                                 3.7
                                       3.7
                                              2.8
                                                          3.1
      Mean = 3.35, Expected = 3.07, Standard Deviation = 0.30
           3.1 3.3 3.4 3.5 3.3
                                        3.5
                                              3.4
6000
                                                    3.4
      Mean = 3.42, Expected = 3.14, Standard Deviation = 0.18
           3.5 3.1
                      3.6 3.6 3.9
                                        3.4
                                              3.5
7000
                                                          3.5
      Mean = 3.56, Expected = 3.19, Standard Deviation = 0.25
           3.9 3.8
                     3.5 3.2 3.6
                                        3.6
                                              3.3
8000
                                                          3.3
      Mean = 3.43, Expected = 3.24, Standard Deviation = 0.32
     4.0 3.5 3.3 3.4 3.4 3.9
9000
                                       3.3
                                             2.9
                                                   3.6
                                                          3.5
      Mean = 3.48, Expected = 3.28, Standard Deviation = 0.31
10000 3.9 3.3 3.7 3.1
                             3.3 3.8
                                        3.8
                                              3.5
                                                          3.1
```

Mean = 3.46, Expected = 3.32, Standard Deviation = 0.32

chi^2 = 8.45010 p-value = 1.00000